

WHAT IS CLAIMED IS:

1. A method, comprising:  
performing delta sigma modulation on a digital quadrature signal;  
converting the modulated signal to an analog signal;  
converting the analog signal to an RF signal; and  
transmitting the RF signal.
2. The method of claim 1, wherein the modulation reduces the number of bits of the digital quadrature signal.
3. The method of claim 2, wherein the reduction is from 10 bits to 4 bits.
4. The method of claim 1, further comprising amplifying the RF signal before the transmitting.
5. The method of claim 1, wherein the delta sigma modulation includes 2<sup>nd</sup> order delta sigma modulation.
6. The method of claim 1, further comprising coding the modulated signal with a thermometer code.
7. The method of claim 1, wherein the digital quadrature signal is formed using one of GFSK, 4-PSK, and 8-PSK modulations.

8. The method of claim 1, further comprising performing interpolation filtering on the digital quadrature signal before the delta sigma modulation.
9. The method of claim 8, wherein the interpolation filtering reduces the digital quadrature signal from 12 bits to 10 bits.
10. A system, comprising:  
means for performing delta sigma modulation on a digital quadrature signal;  
means for converting the modulated signal to an analog signal;  
means for converting the analog signal to an RF signal; and  
means for transmitting the RF signal.
11. An RF transmitter, comprising:  
a delta sigma modulator capable of performing delta sigma modulation on a digital quadrature signal;  
a DAC, communicatively coupled to the delta sigma modulator, capable of converting the modulated signal to an analog signal;  
a mixer, communicatively coupled to the DAC, capable of converting the analog signal to an RF signal; and  
an antenna, communicatively coupled to the mixer, capable of transmitting the RF signal.
12. The transmitter of claim 11, wherein the modulation reduces the number of bits of the digital quadrature signal.

13. The transmitter of claim 12, wherein the reduction is from 10 bits to 4 bits.
14. The transmitter of claim 11, further comprising a power amplifier, communicatively coupled to the antenna and the mixer, capable of amplifying the RF signal before the antenna transmits the RF signal.
15. The transmitter of claim 11, wherein the delta sigma modulator includes a 2<sup>nd</sup> order delta sigma modulator.
16. The transmitter of claim 11, further comprising delta sigma modulator is further capable of coding the modulated signal with a thermometer code.
17. The transmitter of claim 11, wherein the digital quadrature signal is formed using one of GFSK, 4-PSK, and 8-PSK modulations.
18. The transmitter of claim 11, further comprising an interpolation filter, communicatively coupled to the delta sigma modulator, capable of performing interpolation filtering on the digital quadrature signal before the delta sigma modulation.
19. The transmitter of claim 18, wherein the interpolation filtering reduces the digital quadrature signal from 12 bits to 10 bits.